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CONSTRUCTION SPECULATION  
CS-OR-236 ENDANGERED SPECIES

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*Excerpts from 2003 Standard Local Operating Procedures for Endangered Species (SLOPES)*

236.1 ITEMS OF WORK AND CONSTRUCTION REQUIREMENTS

1. This specification outlines contractor responsibilities in meeting the project requirements under the Endangered Species Act (ESA). Information outlined in this specification is a summary of terms and conditions required by the National Marine Fisheries Service (NMFS) Programmatic Biological Opinion issued July 8, 2003 (SLOPES 2003). Therefore, this specification is provided as a courtesy and the Contractor shall refer to the SLOPES 2003 letter in its entirety for all terms and conditions.
2. To implement Reasonable and Prudent Measure #2 (general conditions for construction, operation and maintenance), the Corps shall ensure that:
  - a) Timing of in-water work. Work within the active channel will be completed during the ODFW (2000) preferred in-water work period, as appropriate for the project area, unless otherwise approved in writing by NMFS.
  - b) Cessation of work. Project operations will cease under high flow conditions that may result in inundation of the project area, except for efforts to avoid or minimize resource damage.
  - c) Fish screens. All water intakes used for a project, including pumps used to isolate an in-water work area, will have a fish screen installed, operated and maintained according to NMFS' fish screen criteria.
  - d) Fish passage. Passage will be provided for any adult or juvenile salmonid species present in the project area during construction, and after construction for the life of the project. Upstream passage is not required during construction if it did not previously exist.
  - e) Pollution and Erosion Control Plan. A Pollution and Erosion Control Plan shall be prepared by the Contractor and carried out to prevent pollution related to construction operations. The plan must be approved by NRCS and available for inspection on request by the Corps or NMFS.
    - I. Plan Contents. The Pollution and Erosion Control Plan must contain the pertinent elements listed below, and meet requirements of all applicable laws and regulations.
      - 1) Practices to prevent erosion and sedimentation associated with access roads, stream crossings, construction sites, borrow pit operations, haul roads, equipment and material storage sites, fueling operations and staging areas.
      - 2) Practices to confine, remove and dispose of excess concrete, cement and other mortars or bonding agents, including measures for washout facilities.
      - 3) A description of any hazardous products or materials that will be used for the project, including procedures for inventory, storage, handling, and monitoring.
      - 4) A spill containment and control plan with notification

- procedures, specific clean up and disposal instructions for different products, quick response containment and clean up measures that will be available on the site, proposed methods for disposal of spilled materials, and employee training for spill containment.
- 5) Practices to prevent construction debris from dropping into any stream or water body, and to remove any material that does drop with a minimum disturbance to the streambed and water quality.
    - II. Inspection of erosion controls. During construction, all erosion controls must be inspected daily, by the Contractor and/or NRCS, during the rainy season and weekly during the dry season to ensure they are working adequately. (Quality Assurance Plan)
      - 1) If inspection shows that the erosion controls are ineffective, work crews must be mobilized immediately to make repairs, install replacements, or install additional controls as necessary.
      - 2) Sediment must be removed from erosion controls once it has reached 1/3 of the exposed height of the control.
  - f) Construction discharge water. All discharge water created by construction (e.g., concrete washout, pumping for work area isolation, vehicle wash water) will be treated as follows.
    - I. Water quality. Facilities must be designed, built and maintained to collect and treat all construction discharge water using the best available technology applicable to site conditions. The treatment must remove debris, nutrients, sediment, petroleum hydrocarbons, metals and other pollutants likely to be present.
    - II. Discharge velocity. If construction discharge water is released using an outfall or diffuser port, velocities must not exceed 4-feet per second.
    - III. Spawning areas, marine submerged vegetation. No construction discharge water may be released within 300-feet upstream of active spawning areas or areas with marine submerged vegetation.
  - h) Preconstruction activity. Before significant alteration of the project area, the following actions must be completed.
    - I. Marking. NRCS field representative shall flag the boundaries of clearing limits associated with site access and construction to prevent ground disturbance of critical riparian vegetation, wetlands and other sensitive sites beyond the flagged boundary.
    - II. Emergency erosion controls. Ensure that the following materials for emergency erosion control are onsite.
      - 1) A supply of sediment control materials (e.g., silt fence, straw bales).
      - 2) Oil absorbing floating boom whenever surface water is present.
    - III. Temporary erosion controls. All temporary erosion controls must be in place and appropriately installed down slope of project activity within the riparian area until site restoration is complete.
  - i) Temporary access roads.
    - I. Existing ways. Existing roadways or travel paths must be used whenever

possible, unless construction of a new way would result in less habitat take.

- II. Steep slopes. Temporary roads built mid-slope or on slopes steeper than 30 percent are not authorized.
- III. Minimizing soil disturbance and compaction. When a new temporary road is necessary within 150-feet of a stream, water body or wetland, soil disturbance and compaction must be minimized by clearing vegetation to ground level and placing clean gravel over geotextile fabric, unless otherwise approved in writing by NMFS.
- IV. Temporary stream crossings.
  - 1) The number of temporary stream crossings must be minimized.
  - 2) Temporary road crossings by the Contractor shall be designed as specified below, and submitted to the NRCS for approval:
    - a) A survey must identify and map any potential spawning habitat within 300-feet downstream of a proposed crossing.
    - b) No stream crossing may occur at known or suspected spawning areas, or within 300-feet upstream of such areas if spawning areas may be affected.
    - c) The crossing design must provide for foreseeable risks (e.g., flooding and associated bedload and debris) to prevent the diversion of streamflow out of the channel and down the road if the crossing fails.
    - d) Vehicles and machinery must cross riparian areas and streams at right angles to the main channel wherever possible.
- V. Obliteration. When the project is completed, all temporary access roads must be obliterated, the soil must be stabilized, and the site must be revegetated. Temporary roads in wet or flooded areas must be abandoned and restored as necessary by the end of the in-water work period.
- k) Heavy Equipment. Use of heavy equipment will be restricted as follows.
  - I. Choice of equipment. When heavy equipment must be used, the equipment selected must have the least adverse effects on the environment (e.g., minimally sized, rubber tired).
  - II. Vehicle staging. Vehicles must be fueled, operated, maintained and stored as follows.
    - 1) Vehicle staging, cleaning, maintenance, refueling, and fuel storage must take place in a vehicle staging area placed 150-feet or more from any stream, water body or wetland.
    - 2) All vehicles operated within 150-feet of any stream, water body or wetland must be inspected daily for fluid leaks before leaving the vehicle staging area. Any leaks detected must be repaired in the vehicle staging area before the vehicle resumes operation. Inspections must be documented in a record that is available for review on request by Corps or NMFS.
    - 3) All equipment operated instream must be cleaned before beginning operations below the bankfull elevation to remove all external oil, grease, dirt, and mud.
  - III. Stationary power equipment. Stationary power equipment (e.g., generators, cranes) operated within 150-feet of any stream, water body or wetland must be diapered to prevent leaks, unless otherwise approved in writing by NMFS.
- k) Site preparation. Native materials will be conserved for site restoration.
  - I. If possible, native materials must be left where they are found.

- II. Materials that are moved, damaged or destroyed must be replaced with a functional equivalent during site restoration.
  - III. Any large wood, native vegetation, weed-free topsoil, and native channel material displaced by construction must be stockpiled for use during site restoration.
- l) Isolation of in-water work area. If adult or juvenile fish are reasonably certain to be present, the work area will be well isolated from the active flowing stream using inflatable bags, sandbags, sheet pilings, or similar materials. The work area will also be isolated if in-water work may occur within 300-feet upstream of spawning habitats.
  - m) Capture and release. Before and intermittently during pumping to isolate an in-water work area, an attempt must be made to capture and release fish from the isolated area using trapping, seining, electrofishing, or other methods as are prudent to minimize risk of injury.
    - i. A fishery biologist experienced with work area isolation and competent to ensure the safe handling of all ESA-listed fish must conduct or supervise the entire capture and release operation.
    - ii. If electrofishing equipment is used to capture fish, the capture team must comply with NMFS' electrofishing guidelines.
    - iii. The capture team must handle ESA-listed fish with extreme care, keeping fish in water to the maximum extent possible during seining and transfer procedures to prevent the added stress of out-of-water handling.
    - iv. Captured fish must be released as near as possible to capture sites.
    - v. ESA-listed fish may not be transferred to anyone except NMFS personnel, unless otherwise approved in writing by NMFS.
    - vi. Other Federal, state, and local permits necessary to conduct the capture and release activity must be obtained.
    - vii. NMFS or its designated representative must be allowed to accompany the capture team during the capture and release activity, and must be allowed to inspect the team's capture and release records and facilities.
  - n) Earthwork. Earthwork (including drilling, excavation, dredging, filling and compacting) will be completed as quickly as possible.
    - i. Site stabilization. All disturbed areas must be stabilized, including obliteration of temporary roads, within 12 hours of any break in work unless construction will resume work within 7 days between June 1 and September 30, or within 2 days between October 1 and May 31.
    - ii. Source of materials. Boulders, rock, woody materials and other natural construction materials used for the project must be obtained outside the riparian area.
  - p) Site restoration. All streambanks, soils and vegetation disturbed by the project are cleaned up and restored as follows.
    - i. Restoration goal. The goal of site restoration is renewal of habitat access, water quality, production of habitat elements (such as large woody debris), channel conditions, flows, watershed conditions and other ecosystem processes that form and maintain productive fish habitats.
    - ii. Streambank shaping. Damaged streambanks must be restored to a natural slope, pattern and profile suitable for establishment of permanent woody vegetation.

- iii. Revegetation. Areas requiring revegetation must be replanted before April 15<sup>th</sup> of the following year with a diverse assemblage of species that are native to the project area or region, including grasses, forbs, shrubs and trees.
- iv. Pesticides. No pesticide application is allowed, although mechanical or other methods may be used to control weeds and unwanted vegetation.
- v. Fertilizer. No surface application of fertilizer may occur within 50-feet of any stream channel.
- vi. Fencing. Fencing must be installed as necessary to prevent access to revegetated sites by livestock or unauthorized persons.

236.2 ADDITIONAL ITEMS OF WORK FOR THIS PROJECT

Refer to the drawings for additional erosion control notes